

ROM

Fall/Winter 2023

DEATH: LIFE'S GREATEST MYSTERY

Strange Ritual

A look at how animals respond to loss in their community

Wildlife Photographer of the Year

A closer look at our relationship with nature and the environment

The Art of Giving

Celebrating the generosity and impact of Louise Hawley Stone

volume 55:number 3

2023 fall/winter



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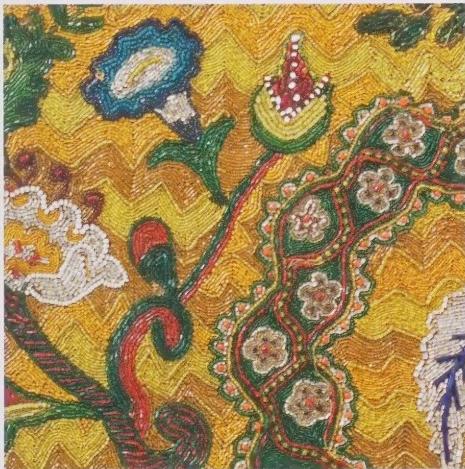
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ROM WRESTLES WITH THE BIG QUESTIONS



AS A LEADING 21ST-CENTURY MUSEUM, with a vast collection spanning art, culture, and nature, it is our responsibility to wrestle with the big questions—the issues that dominate headlines and the existential quandaries that keep us up at night. And nowhere is that more clear than our two latest exhibitions.

Death: Life's Greatest Mystery, which opened in October, draws on a wealth of scientific research and diverse cultural practices to make sense of a topic often deemed too taboo to talk about. It asks probing questions about grief and mourning and spirituality. It features contemporary embalming tools and a replica of a decomposing whale on the ocean floor. Yet, *Death* is far from macabre. It is, instead, life-affirming and, at times, even joyous. We can see that in “Cycles of Life,” a four-minute video installation that shows how growth and decay are interconnected across all seasons. In doing so, the video reminds us that death is not the enemy of life. It is, rather, fundamental to life’s very existence—a simple, but profound truth that places our own lives within the larger context of the natural world.

Wildlife Photographer of the Year, which returned to ROM in November with all-new images, also contends with big questions, chiefly conservation and climate change. In one particularly striking photograph, a pair of white storks stand behind a wall of fire and rippling heat, the consequence of a controlled fire that can so easily go awry. In another, a Mediterranean monk seal—a species *The Guardian* deemed “one of the most endangered mammals on Earth due to historic hunting and human encroachment on its habitat”—swims just underneath the rippling ocean waters in Greece. But even the photographs not overtly connected to climate change and conservation are affecting, for they remind us that nature isn’t an abstraction. It is real, vital, alive—and we need to protect it.

As you will read about in this issue of the magazine, there is far more happening both inside the Museum and out in the field. We are making important new acquisitions and exciting discoveries. We are presenting dynamic new Indigenous-led programming. We are celebrating the 25th anniversary of the Louise Hawley Stone Trust. And we are continuing to evolve into an ever more dynamic community hub, where people from all backgrounds, life experiences, and geographies can come together and enjoy everything the Museum has to offer.

Josh Basseches
ROM Director and CEO

CONTRIBUTORS



Oliver Haddrath

Technician, Birds

Oliver is a research technician and is responsible for the operations of one of ROM's two molecular genetic research laboratories, where the latest DNA technologies are used to study the relationships among species, examine the genetics of rare and endangered animals, and unravel the mysteries of the past using ancient DNA.



Leslie McCue

Inaugural Manager of Indigenous Learning & Programs

Leslie is Michi Saagig Anishinaabe from Curve Lake First Nation. Her work spans over a decade at ROM and is driven by her past, passion to educate, and motivation to empower others.



Chen Shen

*Co-Chief Curator, Art & Culture
Senior Curator, China*

A prominent scholar in the art and archaeology of Early China, Chen has organized and participated in multiple archaeological digs in China, the U.S., and Canada. Over the past two decades, his team has discovered and studied the earliest hominid occupation site in East Asia, dated 1.6 million years ago.



Deborah Metsger

Assistant Curator, Botany

Deborah recently co-authored *A Field Guide to Trees of Ontario*. She communicates all things botanical in ROM galleries, exhibitions, public programs, and popular publications. Her publications include *Managing the Modern Herbarium*, *The ROM Field Guide to Wildflowers of Ontario*, and *Trees, Shrubs and Vines of Toronto*, part of the City of Toronto Biodiversity Series.

Member Benefits

Dispatches

Hidden Spaces

From the Collections

Research

PART 1

NEW PROGRAM

Guild of Immortals

We invite young Members to join us as Seekers on an adventure that ignites curiosity and spans the ages in the Museum.

Participants will receive a fun-filled handbook packed with engaging activities and fascinating facts. Each month, they will be emailed extra activities, exclusive content, and invitations to Guild of Immortals events.

Those who complete the handbook will be awarded a gift to acknowledge their achievement.



Learn more at rom.ca/guild.

BOARD OF TRUSTEES

Members are strongly encouraged to update their contact information with a current email address by calling 416.586.5700.

2023 Member-Elected Trustee Results

ROM's Membership program is an important aspect of the Museum's commitment to public access and accountability. Pursuant to The ROM Act, Members elect four of the 21 positions on the Board of Trustees. Brian Astl was re-elected by the Membership, to fill one elected vacancy on the Board for a three-year term of office from July 1, 2023, to June 30, 2026. An experienced business leader and entrepreneur, he has been a patron of ROM for 18 years. ROM congratulates Brian and thanks its Members for their interest and participation in the Trustee election.

2024 Call for Nominations: Two Member-Elected Trustee Positions on the ROM Board

One Member-elected Trustee position will become vacant on June 30, 2024. The incumbent, Doug Gibson, has served one three-year term as a Member-elected Trustee and is eligible to stand for a second three-year term. The term of office is from July 1, 2024, to June 30, 2027.

An additional position, recently legislated within the ROM Act, will also be available for a three-year term of office from July 1, 2024, to June 30, 2027.

A call for nominations will be open from Monday, March 18 to Friday, April 19, 2024. Should more than two candidates be eligible, an election will be held from Monday, May 13 to Monday, May 27, 2024. To vote, a Member must be in good standing for not less than 30 days prior to (April 14, 2024) and on the date of the election. For more information on the nomination and election rules, please see joinROM.ca.

If you are interested in pursuing a Member-elected Trustee position on ROM's Board of Trustees, please contact election@rom.on.ca for additional details before March 15, 2024.

Please note that ROM is implementing environmentally friendly practices across the Museum. An electronic-based voting system will be used to reduce our paper consumption.

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Member Weekends



THEMUSEUM
10 King Street W,
Kitchener, ON
Saturday, January 27
Sunday, January 28, 2024



Gardiner Museum
111 Queen's Park,
Toronto, ON
Saturday, February 10
Sunday, February 11, 2024

Museum exterior image courtesy of The Gardiner Museum. Museum interior image courtesy of THEMUSEUM. Member Tours photo by David Coulson. Gift photo by Paul Ekkhoff.

Events



Member Evening

Three times a year, enjoy a special night at the Museum, where you can mingle with other Members and learn from our experts. Mark your calendars for the next Member Evening on February 29, 2024.



Member Tours

Guided tours offered 8 months of the year, exclusively for Members on themes from climate change to ancient civilizations.



Give the Gift of Membership

Give family and friends a year-long, all-access pass to 4 billion years of beauty and wonder. Members enjoy free and unlimited admission plus exclusive benefits.

 Members SAVE on select one-year gift memberships. Call 416.586.5700 or email membership@rom.on.ca for your exclusive promo code.

Contact Us

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As a ROM Member, you support everything from acquisitions and field research to increased accessibility and new, more immersive exhibitions. So thanks for belonging—and believing in what we do.

You make ROM better.

 For a list of all Member-related events and programs, visit rom.ca/members/events.

RARE ASTEROID SAMPLE RETRIEVED FOR STUDY

Could this sample hold the “building blocks of life”?

By Colin Fleming



ON SUNDAY, September 24, 2023, the sample return capsule from NASA's OSIRIS-REx mission touched down in the Utah desert. Inside the capsule were 250 grams of black powder—a sample from the asteroid Bennu, harvested by the OSIRIS-REx spacecraft three years before.

Just days after the landing, ROM's Head of Natural History and Teck Endowed Chair of Mineralogy, Dr. Kim Tait, visited the Johnson Space Centre in Houston, Texas. There, she became the first Canadian member of the mission to see the sample with her own eyes.

“There’s a lifetime of work I could be doing on that... material,” Dr. Tait told the *The Globe and Mail*.

Though small and unassuming at first glance, according to NASA, this carbon-rich sample “could contain the chemical building blocks of life.” That is because, as

NASA explained, “Asteroids like Bennu may have delivered water and organic compounds ... to Earth by colliding with it early in its history.”

At ROM, news of the mission's success was met with elation.

“Stories like these remind us that ROM is at the forefront of expanding the boundaries of knowledge and engaging with the critical issues of our time,” said Josh Basseches, ROM Director & CEO. “So let’s applaud Kim for her work advancing our understanding of the universe.”

CECIL ROTH JUDAICA COLLECTION

One of the largest Judaica collections in North America is at ROM



THE MUSEUM RECENTLY ACQUIRED the Cecil Roth Judaica collection, one of the largest Judaica collections in North America. ROM has a long history of collecting Judaica, beginning with the 1909 acquisition of an important Greek brass Hannukah lamp, five years before the opening of the Museum. That first acquisition was followed by pieces from the Kaifeng Jews of China, collected in the 1920s and '30s, and ROM archaeological excavations in Jericho and Jerusalem in the 1950s introduced significant ancient Jewish artifacts to the Museum's collections.

Acquired from the museum at Beth Tzedec Congregation in Toronto, this extensive collection of Jewish historical objects curated by historian Dr. Cecil Roth marks an important step in bolstering ROM's already substantial holdings of Judaica.

The Roth collection includes some of the finest known examples of Jewish ritual art, with 690 notable pieces from ancient times to the present day. Acquired by Roth during his extensive travels over a 40-year period from 1919 to 1959, one of the highlights of this exceptional Judaica collection are rare Esther scrolls, including one dating from the 18th or 19th century and which was illuminated in China, the only known scroll of this type.

Spice container
Jerusalem
20th century
Silver and brass,
handmade and
inscribed

The Cecil Roth Collection will join the Dr. Fred and Joy Cherry Weinberg Collection, which is on display in a dedicated gallery for Judaica established in the 1980s.

ANCIENT MONSTER UNEARTHED

How ROM researchers found Earth's oldest jellyfish

By Colin Fleming



SCIENTISTS HAVE LONG THOUGHT that jellyfish were one of the earliest animal groups to have evolved. Some theorized that jellyfish hunted the seas during the Cambrian explosion, a period more than 500 million years ago in which an array of bizarre new life emerged on Earth. But, until recently, there just hasn't been the evidence.

Unlike, say, dinosaurs, jellyfish are composed of about 95 percent water, which means fossilized records of their existence are extremely rare. But records do exist—and many are right here at ROM.

Under Desmond Collins, the former ROM Curator of Invertebrate Palaeontology, close to 200 fossils of what would later be called *Burgessomedusa phasmiformis* jellyfish were discovered in the 1980s and 1990s at the Burgess Shale in Yoho National Park, a UNESCO World Heritage Site and window into Earth's prehistoric past. But those fossils sat mostly untouched for decades. That is until University of Toronto PhD students Justin Moon and Joseph Moysiuk, supervised by Jean-Bernard Caron, the Richard M. Ivey Curator of Invertebrate Palaeontology at

ROM, published their findings in the journal *Proceedings of the Royal Society B*. Newly named after the Burgess Shale, *Burgessomedusa phasmiformis* is the oldest swimming jellyfish in the fossil record—proof that jellyfish were alive during the Cambrian period.

The discovery was a media sensation, generating dozens of news stories across the globe, including articles in *The New York Times*, *Smithsonian Magazine*, BBC, CBC, and CNN.

"Finding such incredibly delicate animals preserved in rock layers on top of these mountains is such a wonderous discovery," said Dr. Caron. "This adds yet another remarkable lineage of animals that the Burgess Shale has preserved chronicling the evolution of life on Earth."

Capable of attacking sizable prey with their tentacles, *Burgessomedusa phasmiformis* were what Dr. Caron calls "efficient swimming predators." What's more, their existence proves the Cambrian food chain was far more complex than previously thought and that large swimming arthropods like *Anomalocaris*—an alien-looking apex predator—weren't the only hunters around.

Visitors to ROM can see fossils of *Burgessomedusa phasmiformis* on display in the Burgess Shale section in the Willner Madge Gallery, Dawn of Life.

INDIGENOUS LEARNING

Building greater awareness and knowledge of the Indigenous artistic and cultural belongings at the Museum

By Leslie McCue



THE INDIGENOUS LEARNING & PROGRAMS department at ROM has set a variety of programming in motion that support learning at all levels, from staff to school groups and visitors alike. Work within the department spans professional development sessions for staff and visitors, special event programming to mark days of importance, digital literacy programs to engage classes virtually, and working with an Elder in Residence for the first time in ROM's history. The learning initiatives are lead and programmed by the Indigenous Museum Educator team and build on the rich cultural record of Indigenous communities and collections, integrating Indigenous knowledges throughout the Museum.

Returning this year is Hack the ROM, an Indigenous digital learning program that engages Indigenous students and their peers in Grades 4 to 10 throughout Ontario. This five-month program promotes digital literacy skills and is designed to assist students to develop digital media projects inspired by Indigenous Artistic and Cultural Belongings at ROM.

Participating classes engage with staff and resources multiple times through virtual and in-person visits to the Museum to develop skills such as computational thinking, coding, and problem solving through support from the Indigenous Museum Educators, Makerspace Technicians, and mentors from Ubisoft Toronto.

Another successful returning program is the Youth Cabinet, a group of Indigenous and non-Indigenous youth between the ages of 15 and 21 years from Toronto and the Greater Toronto Area. The Youth Cabinet uses an Indigenous framework and a for-youth-by-youth philosophy to provide members with the tools they need to build leadership skills, explore their community, and tell their stories. With the support of local Elders, knowledge carriers, guest artists, and by attending Indigenous community events together, members work toward a culminating youth-centred project that cultivates their communication, leadership, and technical skills. The youth will be unveiling two completed quilts to the public by the end of 2024.

This year, we are launching some new and exciting programs such as the Elder-in-Residence Program to support Indigenous staff at the Museum, working with a variety of Elders in the community, as well as reigniting the Indigenous Advisory Circle. We will continue to share more as programs develop.

Hack the ROM
teaches students
digital media
skills, including an
introduction to
developing video
games.

Applications are currently open for term two of Hack the ROM, which begins in February 2024. To apply, please visit rom.ca/en/learning/hack-the-rom.

Hack the ROM is generously supported by Ubisoft Toronto and the Philip and Berthe Morton Foundation.

Leslie McCue is the inaugural Manager of Indigenous Learning & Programs at ROM. She is Michi Saagiig Anishinaabe from Curve Lake First Nation.

CLIMATE CHANGE

What our fossil record tells us about mass extinctions

By Jean-Bernard Caron

LIFE ON ITS OWN has never influenced our climate as much and as fast as our own species does today. Global climate changes occur naturally on our dynamic Earth. At geological time scales, the changing shape, number, sizes, and positions of the continents play major roles. Sometimes, a perfect storm of causes led to mass extinction events.

Mass extinction events are usually defined as the loss of at least 70 percent of all species on Earth. One of the five of these dramatic events occurred around 445 million years ago at the end of the Ordovician Period. While most mass extinctions happened during periods of global warming, the end of the Ordovician coincided with a global cooling event instead, with massive glaciations triggering global sea level changes.

One of the best places on Earth to study this dramatic mass extinction event is at Anticosti Island in Quebec, the newest Canadian UNESCO World Heritage Site. Be sure to explore the small display of fossils from Anticosti in ROM's newest permanent gallery, the Willner Madge Gallery, Dawn of Life.



World Heritage site
Site du patrimoine mondial

For more information, please visit whc.unesco.org/en/list/1686/.

Dr. Jean-Bernard Caron is Richard M. Ivey Curator of Invertebrate Palaeontology at ROM.

ANCIENT DNA LAB

From studying how species evolved to learning about ancient civilizations, take a closer look at ROM's DNA laboratory

By Oliver Haddrath

ABOVE THE STAIRS OF WONDER, in the very highest point of the Michael Lee-Chin Crystal, is a white, unmarked door that leads to ROM's ancient DNA lab.

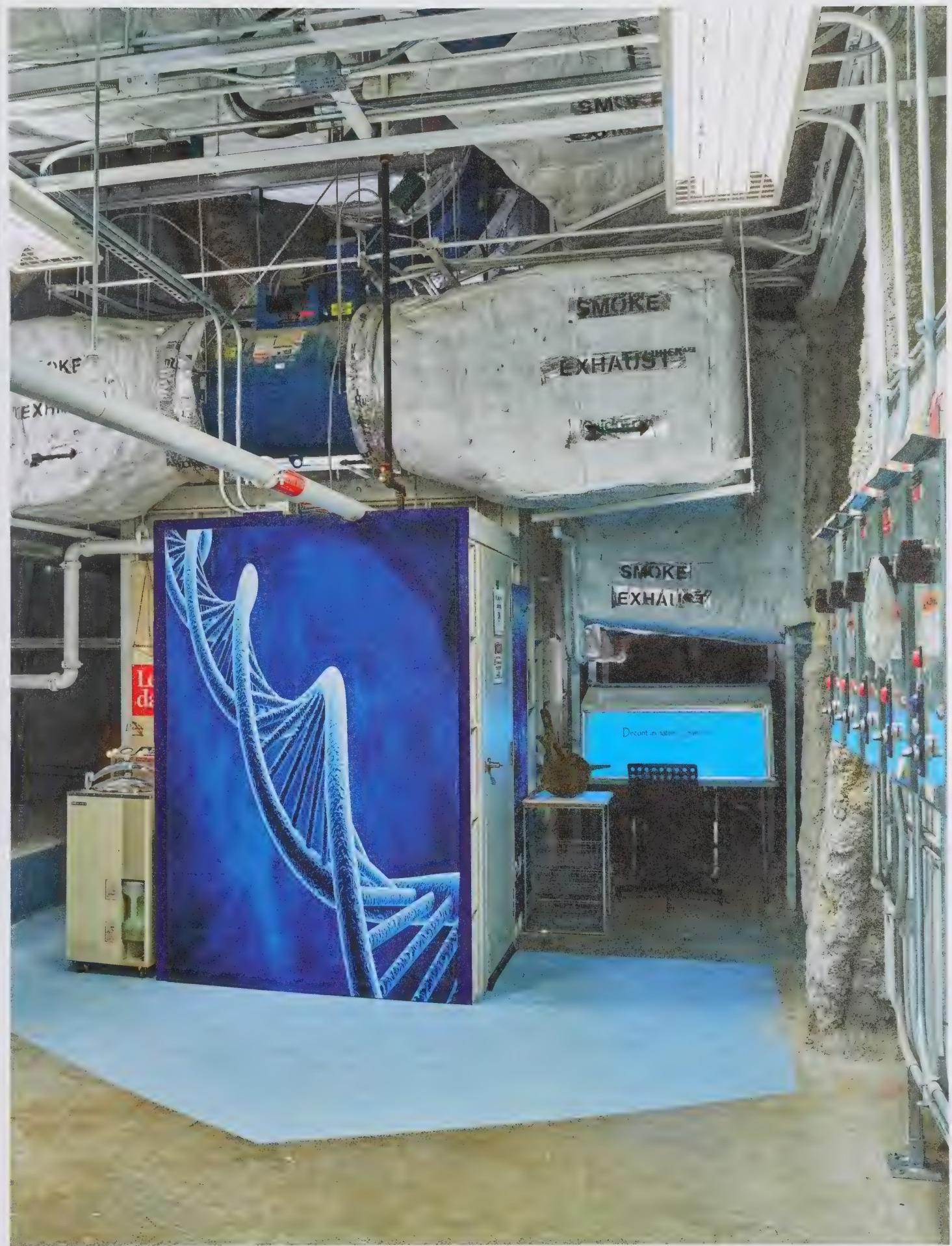
This lab is located far from the Museum's other research labs, the collections, and the public. Its solitude is designed to limit the amount of exposure to modern, potentially contaminating DNAs. This is where century-old blue whale bones are taken when we want to extract DNA to compare them with modern whales, when we have to learn the ancestry of an Egyptian mummy, or when we are trying to understand the origins of rare specimens and art objects for ROM and other institutions.

To keep the lab clean from external DNA, which is everywhere, the lab has UV lights in the ceiling that sterilize the surfaces when researchers are not there. Working in the space requires the scientists to wear the same protective suits and masks as you would find in a hospital pandemic ward.

This type of lab is one of only a handful in Canada.

Dr. Oliver Haddrath is an ornithology research technician in the Natural History department at ROM.







THE LANGUAGE OF MARIAN FLOWERS

Unravelling the iconography in an 18th-century Mexican altar frontal

By Alexandra Palmer

RECENTLY, ROM received a donation from Mr. and Mrs. W. Kent Newcomb of two completely beaded 18th-century antependia. These textiles are works of art that dressed the front of the altar in a Mexican Roman Catholic church. They are spectacular designs worked entirely in precious glass beads. Beads were important global trade goods that became available in quantities during the 17th century.

The imagery and colour of priests' vestments and altar frontals are specific to the liturgical

year. These were made for the Mexican celebrations of Dia de Muertos (Day of the Dead), the Catholic All Souls Day associated with the Virgin Mary. The Virgin Mary is called "The Flower of God," reflecting her Immaculate Conception, perpetual virginity, purity, and Divine motherhood. The frontals are rich in iconography symbolizing Mary's Christian virtues seen in the Marian flowers. The pomegranate is a symbol of the fertility of the Virgin. Carnations represent faith and hope, roses are for charity, morning



glories for strength, lilies her virginity, and tulips for love. Grapes symbolize the blood of Christ.

The design of the yellow antependium is based on fashionable luxury European silks of the period and influenced by painted and dyed Indian cotton chintz. The defined registers mimic, in beads, the format of frontals assembled from panels of silk. The composition was drawn to scale on paper by a professional (probably) male designer as a complete symmetrical work with a mirrored, or faceted, pattern. This is an important

distinguishing feature of the beaded frontal. Large-scale single textiles were only seen in tapestries or embroideries. Usually, altar frontals were pieced from woven silks. The silvery white beaded bands emulate handmade needle lace that is often applied over the seams of cloth altar frontals.

The paper pattern was transferred to European linen by pouncing (pricking and dusting the holes with chalk or ground ink), then drawn in. The marked linen was then stretched taut on a frame. Local nuns, women or girls,

beaded the frontal by following the pounced design with needle and thread holding pre-strung beads. The beads are masterfully selected by colour, size, and texture to create volume and form. They are placed to reflect and capture light, animating the design and the altar. The "lace" is created from various sized white beads—round, tubular, clear, opaque—and patterned with a repeated marigold (Mary's Gold), flowers Mexicans believe attract the souls of the dead. It would have taken months, maybe a year, to complete.

The beaded antependium is a sumptuous and precious work of art that communicates the beauty and glory of God and records the work of many unknown and highly skilled Mexican artisans.

Beaded antependium
or altar frontal
c. 1750–1775
Mexico
114 cm x 260 cm

Dr. Alexandra Palmer is the Nora E. Vaughan Senior Curator of Global Fashion & Textiles at ROM. She is a Chevalier dans L'Ordre des Palmes Académiques.



HELP SAVE THE KIWI

How research at ROM's DNA lab helps with species conservation

By Oliver Haddrath

THE KIWI IS AMONG ONE of the most enigmatic birds in the world. It is flightless, with a long slender bill, shaggy feathers that seem closer to fur than bird feathers, and is found only in New Zealand. Since the arrival of humans to New Zealand almost a thousand years ago, the number of kiwis has been decreasing.

In 1991, the New Zealand Department of Conservation drafted the Kiwi Recovery Plan to reverse the decline of these iconic flightless birds. The plan recognized that, to best

manage kiwis, they needed to be better understood. Thus began a collaboration between ROM and the New Zealand Department of Conservation. Permission was granted by the Indigenous Peoples in New Zealand to send samples of kiwi blood and feathers from birds collected throughout New Zealand to ROM. Working with Allan Baker, who was Curator of Birds at the time, ROM's DNA labs were used to extract DNA from these samples that was then sequenced to reveal how these birds were related to each other.

From the results, it became apparent that there were more than the three officially recognized species of kiwis. There were *at least* five species, with one species having less than 500 birds left. Today, the conservation of the five species of kiwis varies from "recovering" to "nationally critical." Encouragingly, the managed populations are growing by two percent each year. But the unmanaged ones are decreasing by the same amount and constitute 70 percent of the kiwi populations.

One of the chief conservation efforts involves preserving as much of the kiwis' genetic diversity as possible, as its loss can negatively affect species' ability to adapt and survive. Research on ROM's kiwi samples has continued, now led by ROM research associate Dr. Jason Weir at the University of Toronto.

Being able to look at an organism's genome provides a deeper understanding of adaptations, level of genetic diversity, and even how populations have changed. The genome sequences showed that kiwis had gone through declines in the past and recovered. One such decline that affected most kiwi species was during the last Ice Age. But Jordan Bemmels, one of Weir's postdoctoral fellows, also found that the lingering signature in the genomes of North Island brown kiwis coincided with a devastating volcanic eruption of the Taupo super volcano almost 26,000 years ago.

That eruption is the largest volcanic eruption in the last 73,000 years. The eruption covered the North Island in thick layers of ash and igneous rock, devastating habitats, and caused a major loss of genetic diversity in North Island brown kiwis, radically reshaping their population structure. With time, the kiwi populations recovered and recolonized the centre of the island.

The current Kiwi Recovery Plan has set ambitious goals of increasing all five kiwi species to reach 100,000 kiwis by the year 2030. The history revealed by the scientific studies does provide optimism. The kiwi has recovered from declines, and given the opportunity and with managed support, the kiwi may once again be able to recover.

Death: Life's Greatest Mystery

Strange Ritual

Wildlife Photographer of the Year

Louise Hawley Stone

DAPT
PART
L



DEATH. LIFE'S GREATEST MYSTERY

By Chen Shen

D

DEATH AFFECTS EVERYONE and everything around us. We will all eventually die. But the way we deal with that fact is deeply personal.

How we experience death, celebrate life, and wonder about what is next are all part of what makes us human. Death is a part of life, and yet there is hesitancy, stigma, and even fear around the topic. ROM's newest exhibition is aimed at demystifying death and encouraging important conversations that help us understand the subject through meaningful reflection.

The mystery surrounding death comes from profound questions on the nature of existence, consciousness, and what lies beyond. The subject has inspired countless philosophical, religious, and existential inquiries, making it a central theme in the human quest for understanding life.

For thousands of years, humans have tried to explore and explain any possibility of what life after death looks like through literature, religion, and art. *Death: Life's Greatest Mystery* shares how views on death vary greatly among different religious and philosophical traditions. Buddhism, Christianity, and Taoism each offer unique perspectives on this profound and inevitable aspect of human existence. Buddhism talks about how death is not the end but a transition to another life, while in Taoism, an ancient Chinese philosophy and religion, death is seen as a natural part of this cosmic order, not to be feared but accepted with equanimity.

The different views on death reflect the rich tapestry of human beliefs and values across cultures and traditions, providing a range of spiritual frameworks to navigate the mystery of what lies beyond this life.

The exhibition presents an examination of the diversity of cultural practices and the



Drapo ritual flag depicting Bawon Kowona, an ancestral spirit who protects Haitian people from COVID-19. Made by Ronald Edmond artisans. © 2022 Field Museum. FM 362686.

Opposite:
Guna mola textile of
the original sin: Adam
and Eve in the Garden
of Eden.
© 2022 Field Museum.
FM 190472.



myriad ways death is observed in the natural world. Through multisensory, interactive experiences, it provides opportunities to talk about death and explore the existential questions we ask ourselves: What is death? What will happen to my body? What will happen to my spirit? Do I have to die? How will my death affect others?

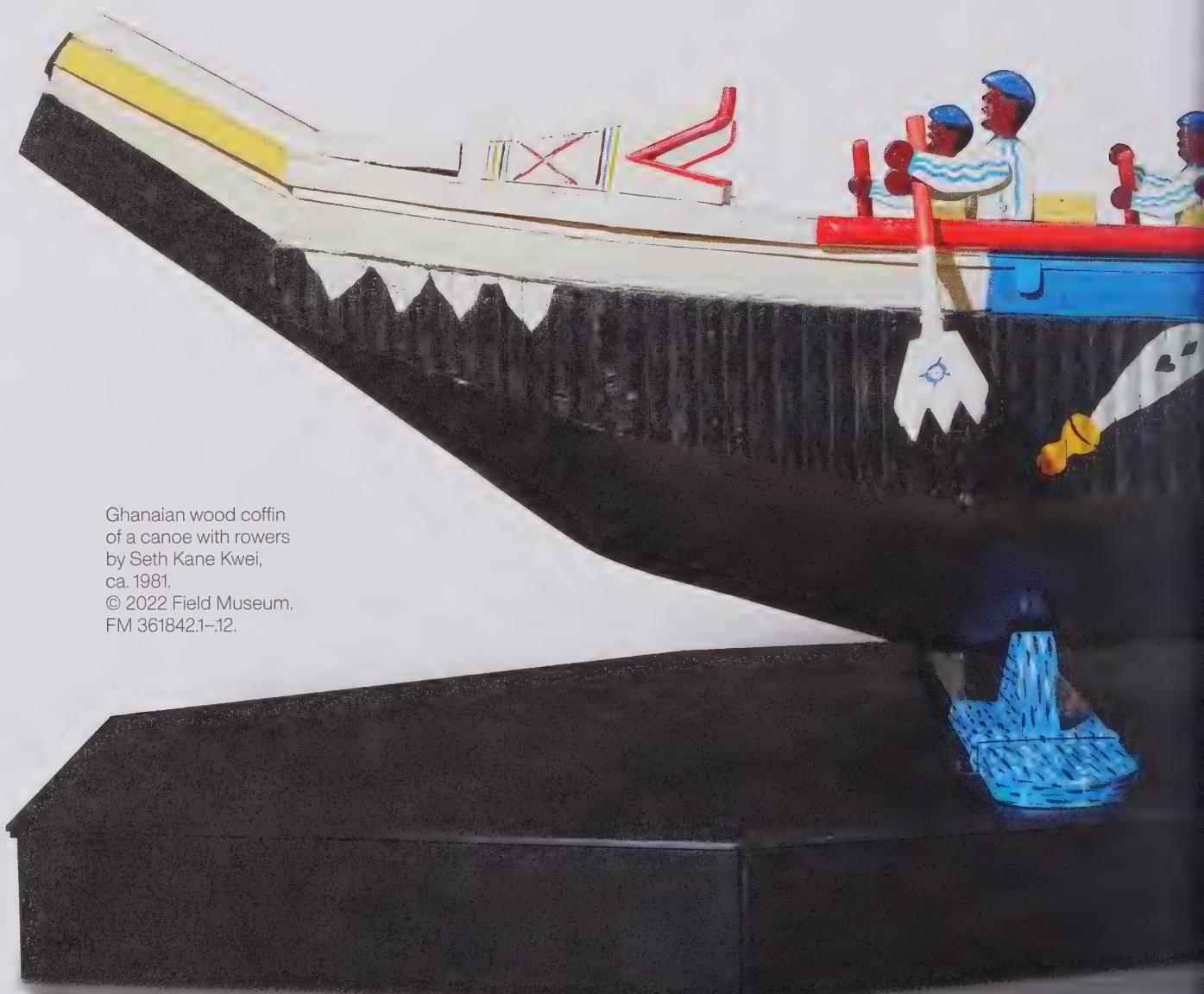
The answers are found in more than 100 cultural objects and specimens, supplemented by props and replicas, that scientists, archaeologists, and anthropologists have put

together in this exhibition to discuss how death and life are interconnected—and to inspire meaningful reflection on grief, remembrance, and survival.

From different cultural and religious practices, ancient and contemporary, to how animals such as elephants, whales, horses, and primates may also grieve at the loss of their own, the exhibition explores how death can be conceived in ways that are different from our standard perspectives.

From an ofrenda (a household memorial for the traditional Mexican Day of the Dead) to a fantasy coffin designed by Seth Kane Kwei for a Ghanaian fisherman, from microscopic tardigrades (water bears) surviving some of the harshest environments on Earth to the sea star that can regenerate an entire new body from a severed limb, the exhibition allows us to think of death as not something that is scary or fearful but rather as a forest that gives life.

One hundred cultural objects and specimens have been put together in this exhibition to discuss how death and life are interconnected—and to inspire meaningful reflection on grief, remembrance, and survival.



Ghanaian wood coffin
of a canoe with rowers
by Seth Kane Kwei,
ca. 1981.

© 2022 Field Museum.
FM 361842.1–12.





Judgement and
Punishment in Hell
19th century, Qing
Dynasty, China.
Ink and colour
on paper.
92 × 167 cm



Shabti figure of individual placed in burial, cast and mold, © 2022 Field Museum. FM 31605.A and .B.

The exhibition is enhanced with a few unique objects from ROM's renowned collections, including a beautiful early-20th-century painting, *Judgement and Punishment in Hell*, that depicts the afterlife of sinful people who enter the Courts of Hell. The painting is based on a popular Chinese belief that originated from Buddhism in the 1100s. Another object, a jade *ruyi*, is a prestigious, auspicious ornament that was gifted among the elites of China's Qing dynasty (1644–1912). It symbolizes Taoist immortality by depicting a motif of the Lingzhi mushroom in Chinese art. Both works, among many others, will be on display to the public for the first time.

Death is everywhere. And life and death are inextricable. *Death: Life's Greatest Mystery* is a thought-provoking, life-affirming, and at times light-hearted exhibition that encourages us to explore the cultural, social, and natural responses to life and death.

This exhibition was organized by the Field Museum and made possible by Lilly Endowment Inc.

Dr. Chen Shen is Co-Chief Curator, Art & Culture at ROM.





STRANGE RITUAL

How animals respond
to a death among them

By Kat Eschner

D



DONNING DARK CLOTHING. COVERING MIRRORS.

Gathering to mourn and remember. Human cultures around the world have a host of death traditions that help those left behind to reckon with their loss and honour those who were important to them. In this essential act, it seems, we are not alone: a growing body of scientific evidence tells us that many non-human animals also respond to death with ritual—maybe, even, with grief.

The research area is sometimes called evolutionary thanatology: the scientific study of death that asks the question, what evolutionary pressures produced the complex responses to the loss of a compatriot that animals have today?

James Anderson, an early contributor to the field, first became interested in animal responses to death in the early 2010s. Back then, he says, he was surprised that there wasn't very much systematic research out there "on how animals cope with the death of other individuals in their group."

Human death rituals tend to have the effect of allowing survivors to process the loss of a community member and, perhaps, reckon with their own mortality. Scientists have long been wary of anthropomorphizing the animals they observe—that is, assigning human feelings and behaviours to animals whose subjective experience of the world is by necessity different from ours. That's where a lot of the historical hesitation to discuss the idea of animal grief comes from—and likely a significant reason why more research into animal death behaviours hasn't been done.

But documented observations of death behaviours in species, from insects to crows, tell researchers that animals do respond to death—even if it's difficult to assign emotion to insects conducting ritualized body disposal.

Anderson, a professor emeritus of psychology at Kyoto University, had long researched



Documented observations of death behaviours in species, from insects to crows, tell researchers that animals do respond to death—even if it is difficult to assign emotion to insects conducting ritualized body disposal.



nonhuman primates when he started looking at death more closely. There are many examples of primates responding to a death among them, he says.

For example, numerous chimpanzee mothers have been documented carrying a deceased infant for a lengthy period after its death. In research Anderson conducted with others, he found that the unpleasant smells emitted by a long-dead infant chimpanzee do, in fact, bother chimps, including chimp mothers, but that they tolerate the smell.

Nobody yet knows *why* this behaviour happens, but it has been observed enough times that researchers are certain it's a commonplace occurrence. To a human eye, it might look like grieving, as might other related responses observed in primates.

"It may just be a mechanism for the mother, to allow her the time to come to terms with the loss," Anderson says. But nobody knows exactly what is behind this death behaviour or the host of others that primates as diverse as gorillas, macaques, and baboons have been observed exhibiting.

For some animals, Anderson thinks grief is possible. "Given the structural similarities between us and especially the other primates... I think that we can't deny the possibility that they are actually experiencing grief. They've just lost an attachment figure," says Anderson.

Asian elephants have also been observed exhibiting similar behaviours. In an analysis of YouTube videos of elephant deaths, researchers from the Indian Institute of Science found a number of examples of elephants carrying deceased calves—as well as other responses to loss, such as investigating the body of a dead compatriot to try and discover the source of what killed them.

"Though the behaviours observed clearly mimic the state of grieving... we may need more observations to strongly conclude that

elephants 'mourn' the death," researchers Nachiketha Sharma (now a postdoc at the Kyoto University Institute for Advanced Study) and Sanjeeta Pokharel wrote in an email interview.

The thing about grieving, the pair wrote, is that it takes energy and diverts from basic needs. Things like spending time with the deceased, carrying them, or even trying to bring them resources all come at a cost to survival. And yet, these consistent responses to death seem to be common in animals—even those farther away from us than other primates and less majestic than elephants. For example, small birds such as the great tits (*Parus major*) have been found to deepen bonds with other flockmates after they lose birds they were close with.

Josh Firth, a zoology researcher at the University of Oxford who conducted research on the birds, says this behaviour has an obvious evolutionary advantage: tighter bonds increase opportunities to find mates and familiar individuals to stake territory during breeding season, decreasing stress. It also, he notes, lines up with patterns observed in human Facebook users, who have been found in a number of studies to deepen their communities after a loss rather than pulling away.

"Obviously, when it happens in humans, you can assign all sorts of complex explanations," he says. "But when you see a similar pattern in a bird like the great tit, maybe there's some more simple mechanisms governing these things."

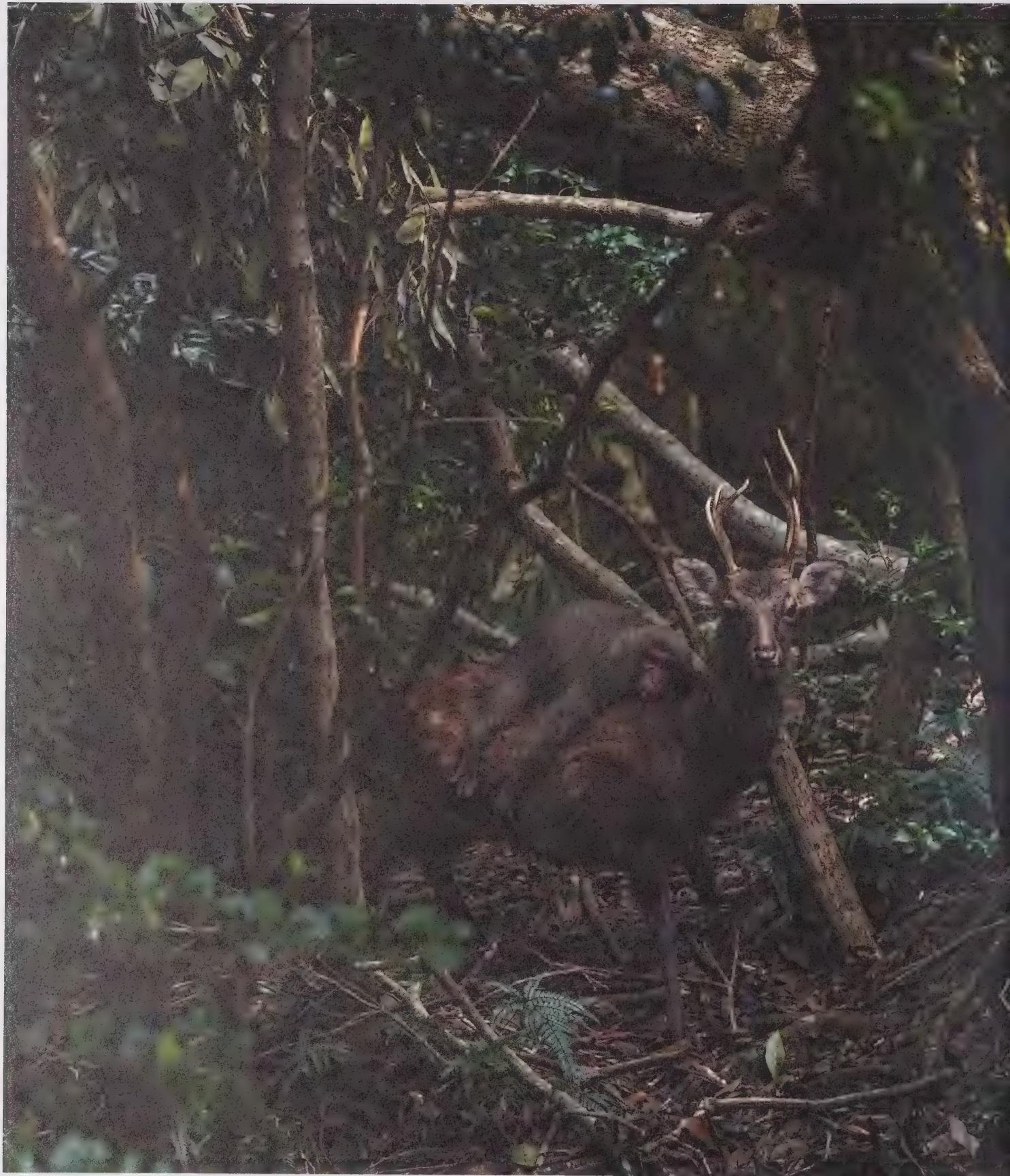
Understanding how animals respond to death has practical applications for humans: for example, changes in the design of slaughterhouses to make them less stressful has, many believe, made the experience of death less traumatic for cows and other meat animals (it reportedly also improves meat quality).

It could also help ecologists assess how their cousins in the wild might respond to the widespread population loss of the Sixth Great Extinction, says Firth. Population declines are often reported as a percentage—say, 60 percent, a commonly reported statistic about overall animal population loss since 1970. "That is a bad thing, standalone," he says.

"But then thinking about responses to loss makes you think, Oh, those 40 percent of individuals that are left have actually now got to respond somewhere to the population decline that you've seen. So what does that mean?" His work lines up with other research in species such as baboons, suggesting that, for some animals at least, reforming close ties with new individuals, increases the likelihood of population survival.

Seeing the parallels in response to loss between animal behaviours and our own lets us see that we're all part of the same animal kingdom, governed by the same basic mortality, and trying to deal with it as best we know how.

Kat Eschner is a freelance science and culture journalist based in Toronto.



ADJUSTING THE LENS ON WILDLIFE



PHOTOGRAPHY

Wildlife Photographer of the Year



One planet.

Countless species.

One hundred winning photographs.

By **Soren Brothers**

Highly Commended,
Behaviour: Mammals
Forest Rodeo
© Atsuyuki Ohshima
Japan



Highly Commended
All Aboard
© Jorgen Rasmussen
Singapore

FOR ANYONE LIVING IN A CITY, it is easy to consider wildlife photography as a window into the “other.” These photographs remind us of how lucky we are with our creature comforts and reassure us with the knowledge that, somewhere in the world, primal drama is still alive and well. It is great being able to check in on the polar bear and her cubs and know that they are okay, without worrying about blackflies and bear spray.

The barrier between urban living and wilderness—if it was ever really there—is coming down quickly. More than half of all people now live in urban areas, which consume vast quantities of natural resources. There is a planetary biodiversity crisis, largely due to habitat destruction and



Highly Commended
Photojournalism
Humanity's Biggest Hole
© Garth Lenz
Canada



Highly Commended
Storm Warning
© Brian Matthews
U.K.

overexploitation, with extinctions occurring 100 to 1,000 times faster than natural rates. Roughly half of all animal species are likely in decline, and terrestrial insect abundance, crucial to the survival of plants and animals, is dropping by nine percent per decade.

What does this all mean? Two-thirds of our planet's wildlife has disappeared in the past five decades, being largely replaced by humans and our livestock, who now together make up 96 percent of all mammal biomass. On top of this, 2023 will likely be the hottest our planet has seen in 125,000 years, exacerbating challenges to already-struggling wildlife.

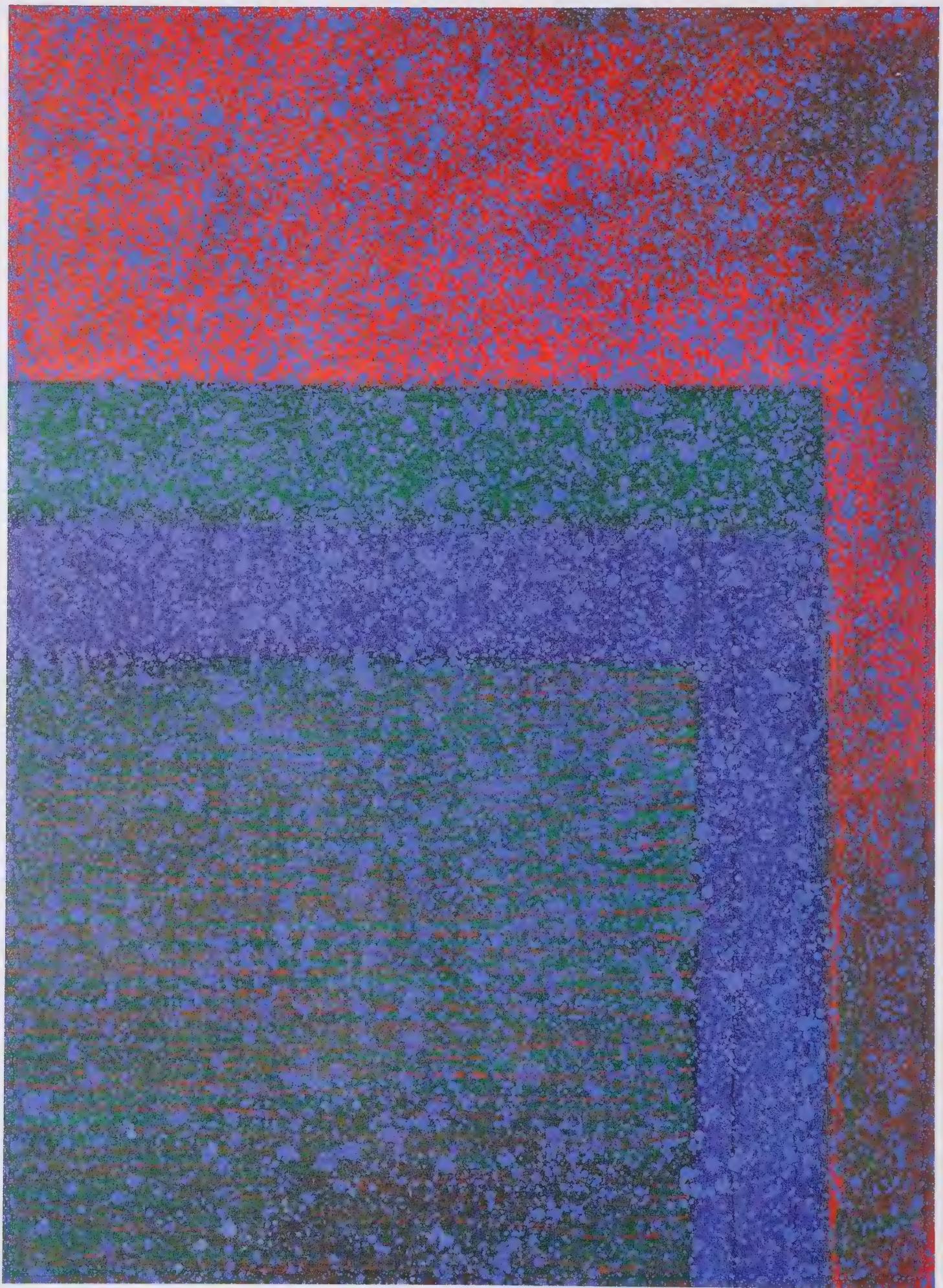
Given this, it makes sense that we are seeing new kinds of images developing through the lenses of photographers. Whether through images of sea ice loss or of species on the brink of extinction, the various challenges faced by wildlife cannot, seemingly, but enter the photographers' fields of vision. But such a change in focus—from one reminding us that nature's doing okay, to a new narrative warning us that things are not going so well—is still just "us" observing "them" from our urban perch. Is there a deeper wisdom we can gain from wildlife photography today?

In her 2013 book, *Braiding Sweetgrass*, Potawatomi botanist and author Robin Wall Kimmerer remarks that her students are eager to declare their love of nature but fall short of being able to imagine how nature might love them. Kimmerer reminds us that loving the world does not require that we disdain humans, assuming for ourselves a two-dimensional role as villain. Rather, our species has a long and illustrious history of playing an active and positive role in the stable flourishing of our home ecosystems, whose gifts continue to cradle and sustain us. In other words, we can be needed and loved by our lands and waters, just as much as we need and love them. And if there's ever been a good time for that reminder, it is now.

Just as we once may have viewed wildlife photography as a window to the distant "other," let us now use it to bring us closer together. As we observe photographs of wildlife, let us consider how the life form in front of us might be influencing us and how we might be influencing it. If our relationship is negative, how do we make it a positive one? If our relationship is already positive, how might we improve it? It is, after all, high time that we started treating this world as if our lives depended on it.

Wildlife Photographer of the Year is developed and produced by the Natural History Museum, London.

Dr. Soren Brothers is the Allan and Helaine Shiff Curator of Climate Change at ROM.



THE ART OF GIVING

PHILANTHROPY HAS THE POWER to bring about massive change. Louise Hawley Stone did just that when she made ROM the beneficiary of a nearly \$50 million trust, the largest cash bequest ever made to benefit the museum. Cultural institutions rely on the generosity of private supporters. Individual philanthropists become a part of public legacy when they add support for the arts that transforms communities. With the establishment of the Louise Hawley Stone Charitable Trust, ROM was able to significantly enhance its collections, multiply its areas of research, and amplify its impact to support transformative experiences.

Stone was a passionate supporter of ROM for more than 50 years. In 1940, she attended a lecture by ROM's new keeper of the Chinese collections, Bishop William White. On that day, she became a lifetime supporter of the Museum. Stone served on the Museum's Board of Trustees from 1958 to 1972, and was a founding member of ROM's Department of Museum Volunteers. She was instrumental in establishing the Bishop White Committee in 1960 to raise funds in support of ROM's East

Asia Department. She also helped establish ROM's Textile Endowment Fund Committee in 1974 along with ROM's first fully endowed curatorial chair, the Louise Hawley Stone Chair of East Asian Art in 1994.

Today, the Louise Hawley Stone Charitable Trust supports new acquisitions, publications related to ROM's collections, and curatorial positions. Stone's generosity, from donating several objects from her personal collection to the establishment of a charitable trust, has bolstered ROM's reputation as the largest museum in Canada that stewards renowned world-leading collections. Objects acquired through the Stone Trust enable ROM to share with its audiences its collections from all over the world—specimens from outer space and prehistoric times to our present era and art that transcends geographic boundaries because it is bound by shared struggles and triumphs. In celebrating 25 years since the establishment of the Stone Trust, we look at some of the extraordinary objects we have been able to acquire through the incredible generosity of Louise Hawley Stone.



Celebrating 25 years
of a foundational
gift made by Louise
Hawley Stone

The Louise Hawley Stone Collections Management System
The Museum recently named its core collections information engine the Louise Hawley Stone Collections Management System to commemorate Stone's passion for ROM and its outstanding collections and her particular interest in documenting and disseminating information about the collections for the public, the research community, and other institutions.

The CMS (Collections Management System) Project began with the goal of integrating 44 disparate collections databases into a single, robust, flexible platform for the creation, collection, management, reporting, dissemination, and archiving of collection information. To date, more than 2 million object and specimen records from every curatorial discipline across art, culture, and nature have been successfully migrated. The Louise Hawley Stone CMS database contains substantial information about an object and its context, including a description, pre-ROM history, as well as current conservation records, environmental requirements, exposure limits, and records to support tracking and flagging object condition and needs.



VISUALIZING AIR

Iris van Herpen is an internationally recognized avant garde design star whose fashions are utterly unique. They are worn by style icons and performers such as Lady Gaga, Beyoncé, and Björk. Since 2012, van Herpen has repeatedly collaborated with Toronto-based architect Philip Beesley. Together, they have set entirely new limits about what constitutes fashion in the 21st century.

The Aeriform collection, AW 2017–18, visualized the invisible—air. The Dome Dress is a suspended silver cloud that floats, defying gravity. Beesley's textile is composed of more than 300 pierced zinc-coated steel circles that took 62 hours to individually laser cut. It required over 240 hours to manipulate and expand each circle over custom moulds to form feathery-light geodesic molecular domes that were assembled by hand.

Says van Herpen, "With certain types of technologies, you really are able to transform a piece of material into whatever your imagination desires." The Dome Dress captures the imagination floating around the body like a wonderous silver cloud.

Dome Dress (Look 18)
Aeriform collection,
AW 2017–18
Iris van Herpen
in collaboration with
Philip Beesley
Zinc-coated,
laser-cut steel.

Dr. Alexandra Palmer is the Nora E. Vaughan Senior Curator of Global Fashion & Textiles at ROM. She is a Chevalier dans L'Ordre des Palmes Académiques.

THE DESTROYER OF SHINS

Named *Zuul crurivastator* after a fictional monster in the 1984 film *Ghostbusters* this 76-million-year-old dinosaur specimen is one of the most complete and well-preserved ankylosaurs ever discovered. The discovery of this specimen allowed ROM scientists to name a new species of ankylosaurs, *crurivastator*, meaning “destroyer of shins,” for its powerful weapon-like tail club.

This specimen has a complete skull and tail club as well as preserved soft tissues that provide a rare and exciting opportunity for new scientific research. The acquisition of *Zuul* represents a significant new addition to ROM's globally renowned collection of Late Cretaceous dinosaurs and fauna.



Zuul crurivastator
Collected: North
America, U.S.,
Montana, Hill County,
Chagnon Ranch, near
Havre, 2014.

Dr. David C. Evans is Co-Chief Curator, Natural History and the James and Louise Temerty Endowed Chair of Vertebrate Palaeontology at ROM.





KENT MONKMAN

Study for the Curious and Incredible Impossibility of Killing Spirit is a series of eight paintings by artist Kent Monkman. The paintings feature moccasins abandoned on the ground, surrounded by Indigenous plants, painted in the style of Victorian naturalist illustration, and mourned by the mîmîkwîsiwak, or little people. In Cree world view, mîmîkwîsiwak are small, secretive spirit beings that can be difficult to see, yet they witness all that is happening around them.

This important acquisition brings to the Museum the work of one of the most significant Cree artists of our times and provides an entry point to the decolonial critique of museum collections.

Study for Tradition
from the series *Study for The Curious and Incredible Impossibility of Killing Spirit*
2022
Kent Monkman
Acrylic on canvas
63.5 x 50.8 cm

Dr. Silvia Forni is the former Senior Curator of Global Africa at ROM.



A TRIASSIC TREE TRUNK

Vertically-sectioned, this polished fossil tree trunk stands nearly two metres high and is over one-half metre in diameter. It displays the brilliant red-orange hues that typify silicified araucarian conifer wood from the Late Triassic (around 220–210 million years ago) Chinle Formation of Arizona. As a petrified specimen, it retains textures of the outer bark surface, along with patches of adhering conglomeratic sediment. The best-known examples of such logs are protected within the boundaries of the Petrified Forest National Park in Arizona.

Petrified araucarian
conifer
Late Triassic,
212 million years old
Holbrook, Arizona, U.S.

Dr. Jean-Bernard Caron is Richard M. Ivey Curator of Invertebrate Palaeontology at ROM.

LIGHT OF THE DESERT

This 898-carat cerussite was the first thing purchased by the Mineralogy section in ROM's Department of Natural History through the support of the Stone Trust. This remarkable gemstone is the largest faceted cerussite in the world. It was named the "Light of the Desert" for its incredible flashes of colour, caused by the dispersion of visible light, and for the deserts where it was found and faceted (the desert of Namibia and the desert of Arizona respectively). This gemstone cannot be worn; it is too soft and highly sensitive to vibration and heat—properties that make cutting such a stone incredibly difficult.

Dr. Kim Tait is the Teck Endowed Chair of Mineralogy and Senior Curator of Mineralogy at ROM.



Light of the Desert
Collected:
Africa, Namibia,
Otjikoto, Tsumeb,
Tsumeb,
898.00 carat.
Cut by Maria Atkinson
of Sedona, Arizona.



ART IN THE TIME OF CHANGE

Zahoor ul Akhlaq is an artist born at a time of profound change. He is part of a generation of artists who experimented with western modernism and at the same time incorporated motifs from a pre-colonial past to produce a new kind of art for a post-colonial present. Akhlaq is considered the father of Pakistani contemporary art.

This work is one of Akhlaq's most beautiful. The gradation from deep red to ochre yellow contrasts with shades of dark to brilliant blue that cut across the surface as frames and drips. There is a female figure perceptible at the bottom, who acts as a bridge between the shaded areas and the frames. This female form is an iconic aspect of Akhlaq's personal iconography, symbolic of life, procreative energy, a sense of home, and mobility.

Dr. Deepali Dewan is Dan Mishra Curator of Global South Asia at ROM.

Untitled
c. 1991
Zahoor ul Akhlaq
Acrylic on canvas
190.5 x 127 cm

TIMELESS BEAUTY

Shao Fan's painting *Grandma* (2009) serves as a tribute to his maternal grandmother, who introduced him to the richness and beauty of ancient Chinese culture. Rather than being a literal portrait of his grandmother, this painting draws inspiration from a long-lasting tradition of Chinese ancestor portraits that typically depict subjects in frontal poses and full-body compositions to honour ancestors. The close-up face of the old lady compels a direct confrontation of the subject to the viewer—a symbol of timeless beauty. This idea is enhanced by Shao's use of a soft, almost radiant colour palette and a deliberate avoidance of individual brushstrokes.

The addition of this contemporary Chinese painting complements our rich collections of both traditional and global art. *Grandma* serves as a point of departure to question boundaries of traditions, identities, and geographies.

Dr. Wen-chien Cheng is Louise Hawley Stone Chair of East Asian Art at ROM.

Grandma
c. 2009
Shao Fan
Oil on canvas
73 x 91 cm



Supporting ROM

ROMTravel

Object Highlight

DARETH
PARESE

SEVEN CURATORSHIPS. INCALCULABLE IMPACT.

Celebrating the Louise Hawley Stone
Charitable Trust-supported curatorships

Before her death in 1997, Louise Hawley Stone established a charitable trust of nearly \$50 million for ROM—the largest cash bequest of its kind in the Museum's history. Today, that gift supports an array of work at ROM, including the establishment of seven endowed curatorships to date: the Dan Mishra Curator of Global South Asia; the Richard M. Ivey Curator of Invertebrate Palaeontology; the L.R. Wilson Curatorship of Canadian Art & Culture; the Allan and Helaine Shiff Curator of Climate Change; the Nick Mirkopoulos Curatorship of Ancient Greece and Rome; the Isabel and Gino Vettoretto Curator of North American Archaeology; and the Hatch Curator of Indigenous Art and Cultures.

Below, three of those curators weigh in on what the Louise Hawley Stone Charitable Trust has meant for their work—and the Museum.

"This fund has been key to making ROM a global leader in

bringing climate change into the heart of the Museum. Only two years into this position, we have engaged hundreds of thousands of people about climate change and its solutions through public programs and exhibitions, plus more than a million people via the press and social media. It has also allowed me to curate two exhibitions, *Noelle Hamlyn: Lifers and Wildlife Photographer of the Year 2023*, into which I have woven crucial climate change research."—Soren Brothers, Allan and Helaine Shiff Curator of Climate Change

"This Louise Hawley Stone initiative has succeeded in spades to encourage further philanthropy. It has been transformative for Global South Asia at ROM in not only securing the curatorial position but enhancing ROM's ability to offer exhibitions and programs in this area."—Deepali Dewan, Dan Mishra Curator of Global South Asia

"As a curator in Natural History, I oversee hundreds

of thousands of fossils, interpret them, and present them to diverse audiences through publications, exhibitions, programming, and the media. The Louise Hawley Stone Charitable Trust has helped catalyze legacy donations from visionary philanthropists—like, in my case, the Ivey family—to create endowed curatorial positions, so that ROM can continue caring for and interpreting our vast and diverse collections in perpetuity."—Jean-Bernard Caron, Richard M. Ivey Curator of Invertebrate Palaeontology

From paradigm-shattering research to urgently needed public engagement on climate change, the Louise Hawley Stone Charitable Trust has made a profound impact on ROM—and the world. But many scholars, researchers, and educators inside the Museum, and out, still lack the funds needed to realize their full potential.

You can change that. Donate today: rom.on.ca/support.

Lifer by Noelle Hamlyn; worn by Noelle Hamlyn
Photography by Geoff Coombs



Noelle Hamlyn: *Lifers*. Photo by Geoff Coombs

EMPOWERING TOMORROW'S LEADERS AND INNOVATORS



On any given day, visitors to ROM will find its galleries alive with children and families learning and exploring together. From awe-inspiring collections to interactive, play-based activities, the Museum offers something for everyone as an essential destination for discovery and wonder.

This year, ROM proudly welcomed BASF as Presenting Sponsor of its Signature Family Programs—a three-year partnership that harnesses the potential of BASF's Kids' Lab Program to offer educational experiences that ignite innovation and foster creativity during Family Day, March Break, and National Chemistry Week in October. In its first year, the vital program enabled more than 3,500 young learners to dive into the worlds of science, technology, engineering, arts, and math (STEAM).

"BASF is immensely proud to join forces with ROM," said Apala Mukherjee, President of BASF Canada. "These learning opportunities in STEAM, sustainability,

and DEI topics can catalyze positive change and inspire the next generation of thinkers and doers to create a brighter, more inclusive future for all."

ROM is deeply grateful to BASF for its incredible support in bringing art, culture, and nature to life for families at the Museum.

There are many ways to support ROM Family Programming and be part of this positive change.

To learn more, please contact Sara Zerehi, VP, Community, Corporate & Foundation Partnerships at saraz@rom.on.ca.

LIVES & LEGACIES: LEARNING BY HEART

Nearly two decades after she received an invitation to attend a curatorial event at ROM, the Museum is like a second home to Neera Chopra and her husband, Deepak. They became members of the Royal Patrons Circle, and Neera was drawn to contributing in a more meaningful way. She began volunteering with gusto, chairing the Friends of South Asia committee, co-chairing ROM Ball 2019, and serving two terms as a ROM Trustee.

Among the many hats she wears, Neera often volunteers as a gallery interpreter. "For me, the learning process is the most rewarding part," she muses. "I'll learn about an exhibition, an object, share that knowledge with visitors, and they share something new back with me! I didn't expect to be so involved in learning later in life, but ROM has enriched my life in many ways I didn't expect."

Like so many, Neera's parents moved to Canada in search of a better life and a good education for their children. "Education has always been key for us as a family," says Neera. "And my parents knew how much I cherish the continued learning I get from ROM. So you can imagine how touched I was when they decided to include ROM in their will as a loving gesture to me."

That gesture became the catalyst for Neera and Deepak to establish the Chopra Family Legacy Fund with continuing contributions during their lifetime and a future gift in their will. "We

decided to establish the fund now so we can build on it over time and so that our family can continue this legacy for years to come," Neera explains. "It's vitally important to us that we help sustain the stories ROM tells, the traditions it protects, and the bridges it builds."

Acknowledging the Museum's role as a unique custodian of world heritage, she adds, "I want future generations to feel that same sense of belonging and connection, to have opportunities to learn about their own and other cultures and histories, about science and the natural world, about art and how it enriches our lives."

By establishing the Chopra Family Legacy Fund, Neera and Deepak join the Currelly Legacy Society, a visionary group of donors who are ensuring the enduring impact of ROM. They also enjoy special benefits such as exclusive events and opportunities for continued learning throughout their lifetimes.

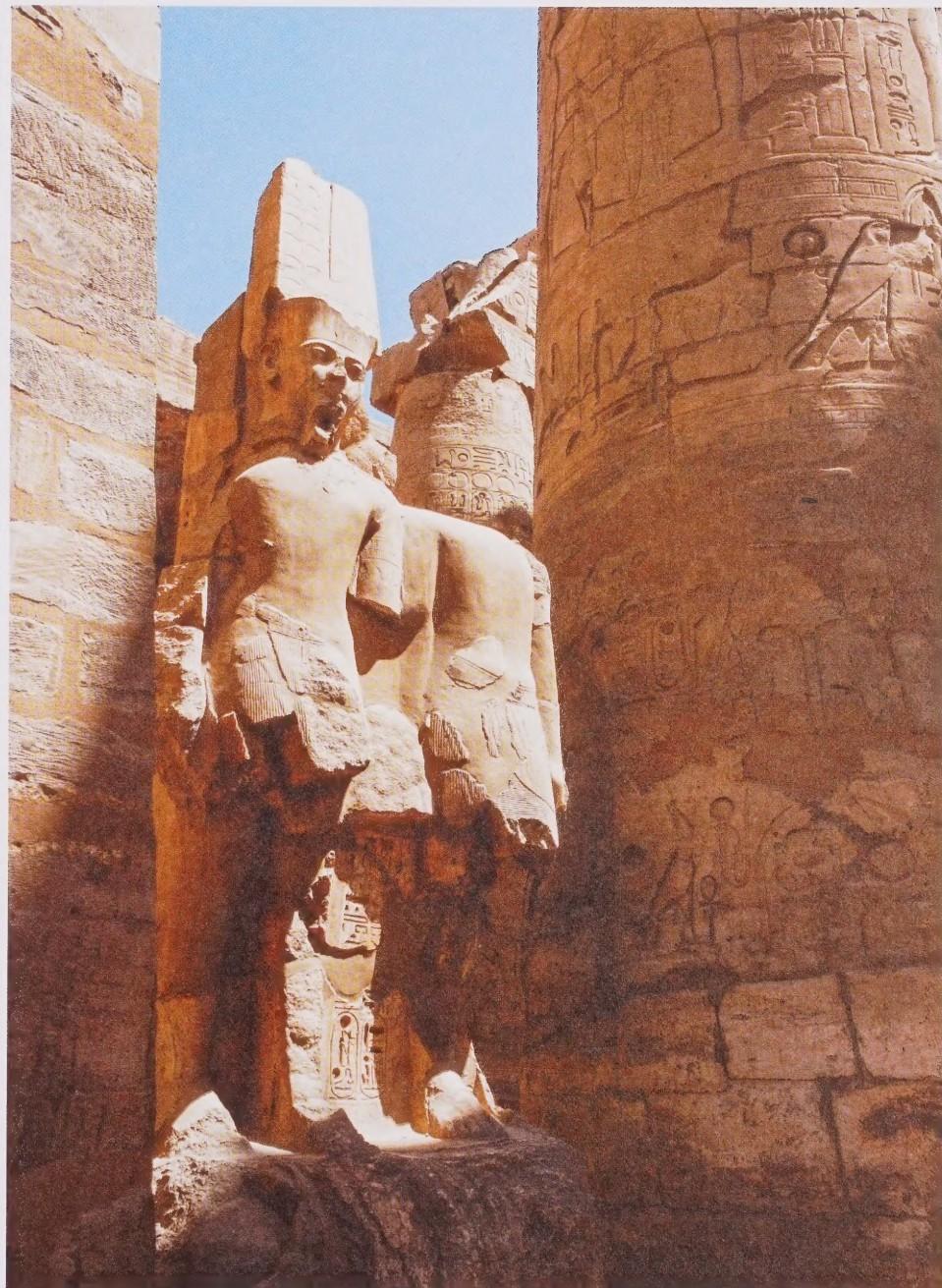
To learn more about establishing a fund or leaving a legacy in your will—and embracing the learning and connection ROM can bring to your own life—please contact janicec@rom.on.ca.



ETERNAL EGYPT AND JEWELS OF JORDAN

November 19 to December 5, 2024

Journey in the footsteps of ancient Egyptians and Nabataeans as we visit the ancient cities of Amman, Jerash, Petra, Luxor, Aswan, and Cairo. Explore the eternal monuments of Egypt, a country poised as a bridge between Africa, Asia, and Europe for many millennia. See UNESCO World Heritage sites, dramatic landscapes of the red desert, and follow the path of Indiana Jones to see the Treasury in Petra. Let the current of the mighty River Nile carry you past the fascinating ruins of Kom Ombo, Edfu, and the mesmerizing Valley of the Kings and Queens, and take a bird's eye view over Luxor. See the grand pyramids in Giza, the romantic Philae Temple in Aswan, the colossal Karnak Temple complex in Luxor, and the "not to be missed" temple in Dendera. Be one of the first to tour the Grand Egyptian Museum, one of the largest, most modern, and most renowned museums in the world.



For more information, contact ROMTravel at travel@rom.on.ca or 416.586.8034.

FLOWERS IN WINTER

A look at the remarkable American witch-hazel which blooms into winter

By Deborah Metsger

AT THE CUSP OF WINTER, the last of the leaves fall from nearly all our deciduous trees and shrubs, revealing tight winter buds and leaf scars on their bare branches. Only one tall shrub stands defiant among them festooned with golden flowers and ripe fruit. American witch-hazel, *Hamamelis virginiana*, native to Ontario, grows in the understory of deciduous forests as a multi-stemmed tall shrub or small tree. It is increasingly planted as a native ornamental shrub prized for its gracefully arching branches and leaves with a golden yellow fall colour. Yet its magic is its fall-blooming habit—the flowers emerging in late October as the leaves fall and last year's fruits shed their seeds. Bright clusters of 4-petalled yellow flowers hug the branches. At dusk, when the light is right, the shrubs glow as if laden with thousands of tiny candles to take us into winter.

Check out the witch-hazel growing on the Reed Family Plaza next time you visit ROM. Read more about the witch-hazel and other tree species in Ontario in *A Field Guide to Trees of Ontario*, published this year by ROM.

Deborah Metsger is Assistant Curator of Botany at ROM.



DELIVERY FROM A DIG

Greetings from the field!

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Signing off,



Dr. David Evans

Co-Chief Curator, Natural History

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